IN THE CLAIMS:

The following is a list of all the claims in the above-referenced application. Each claim contains a modifier indicating its status including any cancellation or amending of claims.

1. (Original) A method of modulating the immune response in a patient in need of such modulation, the method comprising administering to the patient an effective amount of an inhibitor of asparaginyl endopeptidase.
2. (Original) A method according to Claim 1 wherein the patient has or is at risk of a disease which involves MHC Class II molecules.
3. (Original) A method according to Claim 1 or 2 wherein the disease is an autoimmune disease.
4. (Original) A method according to Claim 3 wherein the disease is rheumatoid arthritis.
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Original) A method according to any one of the preceding claims wherein the inhibitor is a competitive inhibitor.
9. (Original) A method according to Claim 8 wherein the competitive inhibitor is a peptide comprising is an asparagine-containing peptide.
10. (Original) A method according to Claim 9 wherein the peptide is an N and C-terminal blocked peptide Ala-Glu-Asn-Lys-NH (AENK) or Lys-Asn-Asn-Glu-NH (KNNE).
11. (Original) A method according to Claim 1 to 6 wherein the inhibitor is a non-competitive or irreversible inhibitor.
12. (Original) A method according to Claim 11 wherein the inhibitor has the structure Bl-$(X)_n$-Asn-Q where B1 is any suitable N terminal blocking group; X is an amino acid residue; n is between 1 and 100, Asn is an asparagine residue and Q is a group capable of reacting with the active site cysteine of asparaginyl endopeptidase.
13. (Original) A method according to any one of the preceding claims further comprising administering to the patient an effective amount of an agent for treatment or prevention or amelioration of an autoimmune disease or an allergic or hypersensitivity reaction.
14. (Original) A method according to any one of Claims 1 to 12 further comprising administering to the patient an effective amount of an immunosuppressive agent.
15. (Original) A method of reducing the processing of a protein antigen by a MHC Class II molecule by a cell, the method comprising contacting the cell with an inhibitor of asparaginyl endopeptidase

16. (Original) A method according to Claim 15 wherein the inhibitor is a competitive inhibitor.
17. (Original) A method according to Claim 16 wherein the competitive inhibitor is a peptide comprising an asparagine-containing peptide.
18. (Original) A method according to Claim 17 wherein the peptide is an N and C-terminal blocked peptide Ala-Glu-Asn-Lys-NH (AENK) or Lys-Asn-Asn-Glu-NH (KNNE).
19. (Original) A method according to Claim 15 wherein the inhibitor is a non-competitive or irreversible inhibitor.
20. (Original) A method according to Claim 19 wherein the inhibitor has the structure Bl-$(X)_n$-Asn-Q where B1 is any suitable N terminal blocking group; X is an amino acid residue; n is between 1 and 100, Asn is an asparagine residue and Q is a group capable of reacting with the active site cysteine of asparaginyl endopeptidase
21. (Cancelled)
22. (Original) Use of an inhibitor of asparaginyl endopeptidase in the manufacture of a medicament for modulating the immune response in a patient in need of such modulation.
23. (Original) Use according to Claim 22 wherein the patient has or is at risk of a disease which involves MHC Class II molecules.
24. (Original) Use according to Claim 22 or 23 wherein the disease is an autoimmune disease.
25. (Original) Use according to Claim 24 wherein the disease is rheumatoid arthritis.
26. (Cancelled)
27. (Cancelled)
28. (Original) Use according to any one of Claims 22 to 27 wherein the inhibitor is a competitive inhibitor.
29. (Original) Use according to Claim 28 wherein the competitive inhibitor is a peptide comprising is an asparagine-containing peptide.
30. (Original) Use according to Claim 29 wherein the peptide is an N and C-terminal blocked peptide Ala-Glu-Asn-Lys-NH (AENK) or Lys-Asn-Asn-Glu-NH (KNNE).
31. (Original) Use according to any one of Claims 22 to 27 wherein the inhibitor is a non-competitive or irreversible inhibitor.

32. (Original) Use according to Claim 31 wherein the inhibitor has the structure BI-$(X)_n$-Asn Q where B1 is any suitable N terminal blocking group; X is an amino acid residue; n is between 1 and 100, Asn is an asparagine residue and Q is a group capable of reacting with the active site cysteine of s asparaginyl endopeptidase.
33. (Original) Use according to any one of Claims 22 to 32 wherein the patient is administered an effective amount of an agent for treatment or prevention or amelioration of an autoimmune disease or an allergic or hypersensitivity reaction.
34. (Original) Use according to any one of Claims 22 to 32 wherein the patient is administered an effective amount of an immunosuppressive agent.
35. (Original) Use of an inhibitor of asparaginyl endopeptidase for modulating the immune response in a patient in need of such modulation.
36. (Original) Use of an inhibitor of asparaginyl endopeptidase for reducing the processing of a protein antigen by a MHC Class II molecule by a cell.
37. (Original) An inhibitor of asparaginyl endopeptidase for use in medicine.
38. (Original) A pharmaceutical composition comprising an inhibitor of asparaginyl endopeptidase and a pharmaceutically acceptable carrier.
39. (Original) A pharmaceutical composition according to Claim 38 further comprising an agent which is usefully administered to a patient in need of modulation of the immune response.
40. (Previously Amended) A pharmaceutical composition according to Claim 38 further comprising an agent for treatment or prevention or amelioration of an autoimmune disease.
41. (Original) A pharmaceutical composition according to Claim 38 further comprising an immunosuppressive agent.
42. (Original) A pharmaceutical composition comprising an inhibitor of asparaginyl endopeptidase, an inhibitor of cathepsin S and a pharmaceutically acceptable carrier.
43. (Cancelled)
44. (Cancelled)
45. (Cancelled)
46. (Cancelled)
47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Original) An inhibitor of asparaginyl endopeptidase which has the structure B1(X_aX_n)Asn-Q wherein B1 is any suitable N terminal blocking group; X_aX_n are the n amino acid residues immediately N terminal to an Asn cleavage site in the invariant chain of Class II MHC molecules; Asn is an asparagine residue; and Q is a group capable of reacting with the active site of asparaginyl endopeptidase.

53. (Original) An inhibitor according to Claim 52 wherein the number of amino acid residues in (X_aX_n) is between 1 and 25, preferably between 2 and 10.

54. (Original) An inhibitor according to Claim 53 which is any of B1-Ser-Gln-Asn-Q; B1-Leu-Glu-Asn-Q; B1-Leu-Gln-Asn-Q; B1-Pro-Glu-Asn-Q; B1-Leu-Lys-Asn-Q; B1-Gln-Asn-Q; B1-Glu-Asn-Q; B1-Asp-Glu-Asn-Q; B1-Asn-Gly-Asn-Q; B1-Phe-Pro-Asn-Q; B1-Val-Pro-Asn-Q; and B1-His-His Asn-Q.

55. (Original) An inhibitor of asparaginyl endopeptidase which has the structure (Xb-Xc)Asn(Xd-Xe) wherein (Xb-Xc) are the r amino acid residues immediately N terminal to an Asn cleavage site in the invariant chain of Class II MHC molecules and (Xd-Xe) are the s amino acid residues immediately C terminal to an Asn cleavage site in the said invariant chain; Asn is an asparagine residue; and r and s are independently between 2 and 25.

56. (Original) A composition comprising an inhibitor of asparaginyl endopeptidase and an inhibitor of cathepsin S.